


AI and RFPs: Prompting Techniques for Better Proposal Writing



“I like AI and want to use it more but...”

- The outputs are too bland and generic
- It takes too long going back and forth to get something good
- It's not customized to my company's past performance / experience

Better ingredients + Better recipes = Better results.

To use AI more effectively you need to either:

- Improve the AI

OR

- Improve your techniques for using the AI

So... how do you take your prompts from looking like this:

Please write a technical approach to endpoint security management



Here's a comprehensive technical approach to endpoint security management, which can be tailored to specific needs and environments:

Technical Approach to Endpoint Security Management

Introduction

And upgrade them to look like this:

“Act as an experienced proposal writer for {{Company_name}}. Your goal is to develop a compliant strategy for our firm to respond to {{RFP_Task_Title}} and write a high-scoring draft of section {{section_name}} of our proposal for {{Agency_name}}’s federal solicitation {{solicitation_title}}.

Context

First, consider our firm’s strengths and our past performance. Then think step by step on how to structure them to meet the PWS tasks and address the Evaluation Criteria directly (provided below).

Chain-of-Thought

Ideate separately from the perspective of {{SME_Solution_Architect}} who is deeply experienced in {{relevant_field}} and enhance your response by integrating these elements into the response.

Persona/Thinking hat

Your response must be extremely concise. Do not use any flowery language. Prioritize providing specific examples that illustrate HOW we do this work and approach these tasks.

Expectations

PWS Task: {{PWS_Task}}

Eval Criteria: {{Evaluation_criteria}}

Our Company Info: {{Similar_past_performance}}”

Data

Agenda

- **Understanding AI in Proposal Writing (10 minutes)**
 - AI Basics: What it means for government contractors.
 - Case Studies: Third-party research on AI capabilities (and success) in proposal writing.
- **Practical Application of AI Tools (20 minutes)**
 - Effective Prompting Techniques: Crafting prompts for optimal results.
 - How to SHRED an RFP and generate a Compliance Matrix quickly with AI
 - Organizing Bid Libraries: Best practices for AI integration.
- **Security and Privacy in AI Usage (5 minutes)**
 - Navigating Challenges: Ensuring data security and privacy.
 - Discussion: Government perspective on secure AI usage.
- **Q&A and Open Dialogue (15 minutes)**
 - Interactive session addressing specific concerns and strategies.
 - Emphasis on government-industry collaboration for problem-solving

Participant Takeaways

- **Practical Knowledge:** Understand how AI can streamline the proposal writing process, making it more efficient and less labor-intensive.
- **Hands-On Experience:** Gain first-hand experience in using AI tools to enhance proposal quality and compliance.
- **Resource Optimization:** Learn techniques to allocate your resources more effectively, reducing the time and cost of proposal development.
- **Innovation Insight:** Stay ahead of the curve by understanding how AI can give you a competitive edge in the government contracting landscape.

Course Philosophy:

This course is designed purely for educational purposes, adhering to AFCEA's mission of fostering government-industry collaboration. There will be no promotion of specific software or solutions, ensuring an unbiased and informative experience.

Introduction: Alexander Cohen



Alex is the Founder and CEO of GovPro AI, a startup dedicated to helping small government contractors write better, more compliant proposals more easily.

After graduating from Yale, Alex worked in startups for a number of years before he became the Program Manager of the Acquisitions Support Services contract for the Department of Interior, Bureau of Indian Affairs for 5 years, overseeing a team of 33 contract specialists that awarded \$1.2B of procurements.

Afterwards, Alex started writing proposals for 8(a)'s, ISBEEs, SDVOSBs and other SME govcon businesses, winning over \$150M in awards 3 years while earning his MBA from INSEAD business school.

Misconception: AI will replace us

AI can and should be used to augment human capabilities and assist people, not replace them

AI tools have the potential to help speed up and automate certain tasks, however...

Humans are still needed to ensure the tools are being applied appropriately and that their outputs meet standards of quality and alignment with human values.

It's an interaction between a human and and AI tools: go through the normal process that a human has to go through of

- Read section CL&M to do shred
- Turn that into a compliance Matrix
- Turn that into an outline
- Find the parts of the outline that relate most closely to each one and make sure those crossover then pull the parts from a past proposal library that are kind of relevant. And then that is what becomes the pink team draft.

The Ideal AI

Would be like an experienced proposal writer who knows

- ◆ Your company history and values
- ◆ Your team
- ◆ Past performance
- ◆ Capabilities
- ◆ Accomplishments etc

→ AND

- ◆ Can match that to a solicitation's requirements
- ◆ Can shred a solicitation and understand sections C, L and M
- ◆ Can help do some ideation and solutioning etc

The problem

- Proposal development is expensive and time consuming.
- Most organizations don't know how to **unlock** the power of their *institutional proposal knowledge*
 - ◆ You have winning past proposals, but reformatting that content to meet new requirements takes time and money.
 - ◆ Getting a pink-team draft takes a week and 50+ hours across multiple people



Tasks AI can greatly assist with

Solicitation SHRED

Finding boilerplate

Proposal outline

Blue, Pink, Red, Green, Gold

Shall statements

Assigning and reviewing

Compliance matrix

Managing proposal teams

Past performance

Generating crosswalks

The Power of Prompting

Effective Prompting Techniques: Crafting prompts for optimal results.

How to SHRED an RFP and generate a Compliance Matrix quickly with AI

Organizing Bid Libraries: Best practices for AI integration.

Basic Prompting: Context Setting in Proposal Writing

Importance of Context: In proposal writing, providing AI with the context of the solicitation, including:

- The agency,
- The specific problem statement, and
- The objectives of the project, is crucial.

This ensures the generated content is aligned with the government's needs.

Introducing Context: When asking AI to help draft a section of the proposal, start with a brief overview of the project's background, the target audience (e.g., federal agency), and the specific goals. For instance, "Draft an executive summary for a proposal addressing the Department of Energy's need for renewable energy integration solutions."

Crafting Precise Instructions

Be explicit about what each section of the proposal should cover. For example,

"Generate a project management plan outline that includes timelines, milestones, and risk management strategies for a cybersecurity upgrade project for the Department of Defense."

Avoiding Vague Language: Specify the exact requirements and avoid generalities. Instead of

"Write about our team's qualifications"

use

"Detail our team's cybersecurity certifications, experience with government projects, and roles in the proposed project."

Desired Output Format, Tone and Length

Formatting: If the solicitation document requires specific formats or sections, instruct the AI accordingly. For example, "Create a table listing the key personnel, their qualifications, and their roles in the project, following the format specified in the RFP."

Setting the Tone: The tone of a government proposal is typically formal and precise. Instruct the AI to match this tone, for example, "Write a formal description of our proposed solution, emphasizing innovation and cost-effectiveness."

Length Dictates Depth: Government proposals often have strict page limits or word counts for each section. Direct the AI to adhere to these limits, such as "Draft a project summary in no more than 200 words that highlights the innovation, team expertise, and the impact on the agency's mission."

Advanced Prompting for GovCon

Effective Prompting Techniques: Crafting prompts for optimal results.

a. Zero Shot vs Few Shot

- i. How many past examples do you give it? If you have past examples to provide, that will produce the best results

b. Chain of Thought

- i. Use the prompt phrase “Think step by step” to produce better results when you don’t have past examples

c. Persona based

- i. Tell the AI how who it is and how you want it to respond “You are an experienced proposal writer for federal solicitations” and tell it to “avoid flowery language, no yapping”

d. Provide Context & Retrieval Augmented Generation

- i. Similar to a. you should provide and prompt the AI with the relevant pieces of information
- ii. You can use a prompt like “In your response, please only reference our company, and the agency we are proposing to do NOT reference other companies or agencies in this section”

e. Context Window Optimization

- i. Prepare the AI to receive information before responding by saying “I am first going to provide 5 examples of X and when I do, just answer OK. Then I will ask you to do Y by providing a prompt with the command “EXECUTE” ok?”

Exercise: Shred an RFP to create a compliant outline

Using these techniques, come up with a prompt you could use with an AI to shred sections C, L and M of an RFP and create a compliant proposal outline.

Remember:

- Add context
- Be specific and precise
- Define the persona
- Specify the output and tone

When you're done, type your prompt into the chat box!

Exercise: One prompt answer

Your job is to act as an experienced federal proposal writer. I am going to give you a copy of the solicitation including the specifications, as well as the instructions to offerors and the evaluation sections. I want you create a compliance matrix for this solicitation. Thinking step by step, I want you to extract the Instructions to Offerors and structure how the bid outline should look and then consider the exact Specifications that need to be included in each section. Do not use any flowery language. Here is the solicitation:

Next Steps

How could you customize a prompt to write a draft of a given section of the proposal?

Next Steps

You are an expert at writing comprehensive, detailed outlines for federal proposals. You will be given a solicitation. First you need to find the Instructions to Offerors section and Evaluation Criteria. Then you must organize an outline in response to this RFP paying special attention to the Instructions to Offerors section. Enhance this outline by considering the evaluation criteria and highlighting where to address the relevant criteria within each section. Make sure to mention the page limitations per section in your outline.

Then, enhance the outline with specifics from the SOW, add many additional subsections and sub-subsections within the Technical Approach (ie 3.1 and 3.1.1) to address specifics of the SOW in order to ensure we have a winning proposal outline

Security and Privacy in AI Usage

Navigating Challenges: Ensuring data security and privacy.

Discussion: Government perspective on secure AI usage.

Security and Privacy in AI Usage

Never input private information into a public AI

OpenAI ChatGPT / Microsoft Copilot / Google Bard

Unless you have an enterprise account with these services that specifically states ***“we do not train on your personal information”*** then you are at risk.

Q&A and Open Dialogue (5 minutes)

Interactive session addressing specific concerns and strategies.

Emphasis on government-industry collaboration for problem-solving.

Thank you!

[Alexander Cohen](#)

(301) 922-0151

alex@govpro.ai



govpro.ai/contact